

REMARKS

The Office Action indicated that Claims 12-19 were allowed and further indicated that the subject matter of Claims 3, 8, and 11 would be allowed if rewritten in independent form.

Applicant requests that the allowability of the dependent claims be held in abeyance until the following remarks are considered.

The present invention employs an environmentally accepted moisture absorbent device with a clear indicator function and an appropriate printed indicia that becomes visible upon a predetermined moisture absorption. Our present invention uses a resin layer containing 5 to 80% zeolite by weight with printed indicia provided on at least one side of the resin layer. The printed layer can be provided on a polyethylene film on a reflecting surface and a film having a low refractive index can be positioned between the printed pattern and a reflecting surface as an alternative arrangement.

A zeolite-containing resin can be selected to vary from a whitish turbid state, as shown in our Figure 2b to a transparent state upon a predetermined amount of moisture absorption. A partial barrier layer can be provided on the zeolite-containing resin composition to regulate the rate of moisture absorption. As can be appreciated, these layers can be heat laminated and even can be combined as part of a packaging bag.

As noted in the cited *Williams et al.* (U.S. Patent No. 5,224,373), dehydrated packaging was developed during World War II where desiccant silica gel would have to be reconditioned. Subsequently, color changing chemical indicators were developed using blotting paper coated with cobalt chloride and additives. As can be readily determined, this is relatively old technology in a relatively crowded field. These factors should be taken into consideration when evaluating our present invention.

“Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.”

*Continental Can Co. USA Inc. v. Monsanto Co.*, 20 U.S.P.Q. 2d. 1746, 1752 (Fed. Cir. 1991).

The Office Action rejected Claims 1-2, 4-7, 9 and 20 as being obvious over a combination of the *Williams et al.* reference in view of *Lowther* (U.S. Patent No. 4,038,050).

Our present invention recognized the desire to do away with heavy metal such as cobalt. It is readily apparent, however, that the *William et al.* reference only intends to use cobalt as noted in Column 5, Line 66 through Column 6, Line 10:

Although cobalt chloride solutions are no more harmful to humans than common table salt, they are known to cause corrosion of some metals if direct contact occurs. Also, blotter paper is known to shed paper fibers and lint. However, in the present invention, the inner layer 14 being formed of flash spun, film fibril high density polyethylene material will allow water vapor to be transmitted to the intermediate layer of blotter paper 12 while at the same time will prevent direct contact between the contents of the container and the chemically treated blotter paper and will prevent any paper fibers or lint from entering the interior of the container. (underline added)

Thus, the *Williams et al.* reference teaches away from replacing cobalt chloride on the grounds that it is not harmful.

Additionally, the Office Action apparently mistakenly believes that the resin layer of the *Williams et al.* patent is, in fact, mixed with a chemical solution of cobalt chloride and additives to change color. Applicant respectfully disagrees.

The Office Action contended that in the humidity indicator of *Williams et al.*, “said printed layer is made to visibly appear due to the resin layer becoming transparent by moisture absorption (Column 4, Lines 1-29).” The resin layer of *Williams et al.* the Office Action referred

to must be a thin flexible outer layer 13. The thin flexible layer 13 is transparent from the beginning and does not change in transparency thereafter.

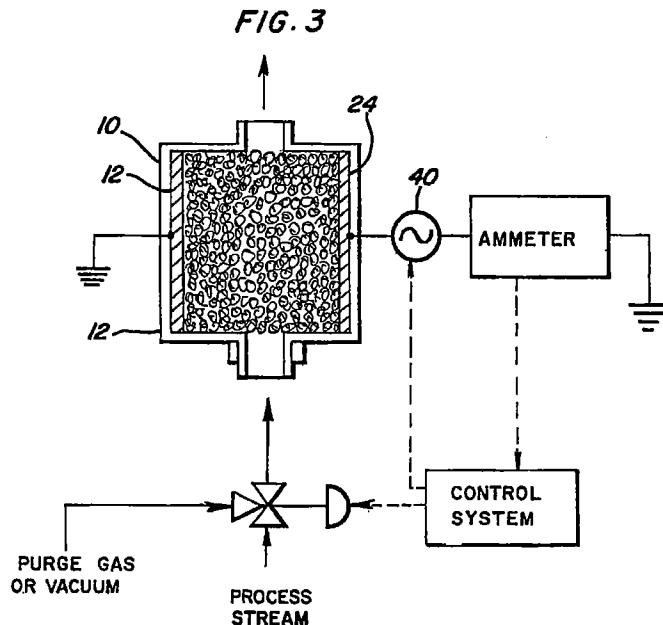
It is clear that a thin intermediate layer 12 of flexible humidity material is not regarded as being the resin layer since the thin intermediate layer 12 is formed of a single sheet of a moisture absorbent material such as blotter paper treated with a chemical solution of cobalt chloride and additives which will change color at different levels of humidity, i.e., from a blue color (dry) through a lavender color to a pink color (humid), but will not become transparent. In addition, the indicia representing different levels of humidity, such as "10%," "20%," "30%" and "40%" do not or need not have different print densities as the circled areas (16, 17, 18, 19) that have impregnated cobalt chloride in respective different degrees so as to permit the indicia to be read at the time when the color of each circle color changes into a lavender color.

The *Lowther* reference would teach to a person of ordinary skill a processing of moisture containing process streams such as in an oil refinery, where it is desirable to remove moisture to prevent subsequent decontamination in downstream processing procedures. Thus, the high cost of removing water vapor content is still cheaper than the potential problems as noted in Column 1, Lines 37-44:

The problem of drying large volumes of fluids at a rapid rate is particularly pressing in the operation of petroleum refineries in which large quantities of hydrocarbon fluids are handled daily. The increase in the yield of product which accompanies such reduction in the water content of the charging stock in many instances more than compensates for the cost of drying the charging stock with chemical drying agents.

Basically, *Lowther* teaches a molecular sieve of either natural or synthetic zeolite with a particular size pore configuration to maximize the surface area for absorbing water. See Column

5, Lines 38-48. Since the *Lowther* reference is meant to operate in an oil refinery, it specifically teaches a metal vessel 12 shown, for example in Figure 3, as follows:



The body of the vessel can provide an electrical contact with a synthetic zeolite particulate bed of a desired molecular sieve shape. The Office Action should recognize that the principal teaching of this reference is a control system for measuring the amount of water content electrically and providing a signal to interrupt any gas flow through the particulate bed at a predetermined bed water content.

Additionally, electrical energy can be applied between electrodes to regenerate, through heat, the particulate bed with the heating. Basically, only the surface of the absorbent crystallite structure is impacted by the heat. See Column 9, Lines 10-26.

While *Lowther* may disclose a moisture absorbent material with an indicator function that can change colors by absorbing moisture (column 4, lines 36-53), it does not disclose resin

containing 5 to 80% zeolite. The Office Action states that the desiccant "molecular sieve" used in the system of *Lowther* is composed of resin and zeolite. However, the molecular sieve consists essentially of natural or synthetic zeolite which is crystalline, metal aluminosilicate and contains no resin. In the system of *Lowther*, the molecular sieve is used as a bed of zeolite molecular sieve particles packed in a vessel (12). The cited passage of *Lowther*, Column 4, Lines 36-53, relates to the properties of the molecular sieves per se. *Lowther* does not mention at all that a molecular sieve or zeolite is mixed in a resin material or that a desiccant is formed of a resin film containing molecular sieves or zeolite.

Claim 10 was rejected over a combination of the *Williams et al.* reference in view of *Lowther*, when further taken in view of *Nakajima et al.* (U.S. Patent No. 5,712,023) under 35 U.S.C. §103.

*Nakajima et al.* discloses using an ink film of thickness between 2 and 20 microns for the benefit of quick drying time and evenness of the surface (column 6, lines 37-47). However, the thickness between 2 and 20 microns is not that of the ink film but that of a surface layer (A) constituting a thermoplastic resin stretched film laminate on which an offset ink will be placed by offset printing, see Column 6, Lines 37-47, as follows:

In the thermoplastic resin film laminate of the present invention, lamina (D) should have a thickness of not less than 2  $\mu\text{m}$ , preferably 5 to 25  $\mu\text{m}$ . The surface layer (A) should have a thickness of not less than 2  $\mu\text{m}$ , preferably 2 to 20  $\mu\text{m}$ , more preferably 5 to 25  $\mu\text{m}$ . If surface layer (A) is thicker than 20  $\mu\text{m}$ , the resulting film laminate, when offset printed with general-purpose offset inks of oxidative polymerization type (drying oil type), tends to develop unevenness on its surface or curling as a whole, and if surface layer (A) is thinner than 2  $\mu\text{m}$ , the speed of drying offset ink on the resulting film laminate is slow. (underline added)

It is respectfully submitted that a combinations of these two and three cited references could only have been taken in hindsight from the present application, and even if hypothetically combined, would not meet the specific claimed elements of our present claims.

Additionally, there is no suggestion in the basic *Williams et al.* patent to use anything other than a chloride cobalt on a blotter. The *Lowther* reference is directed to removing moisture from a processing line in an oil refinery, and there is no rationale for combining either of these references, or when further taken in view of the *Nakajima et al.* reference.

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *see KSR*, 127 S. Ct. at 1739-40 (explaining that when the prior art teaches away from a combination, that combination is more likely to be nonobvious). Additionally, a reference may teach away from a use when that use would render the result inoperable. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1354 (Fed. Cir. 2001).

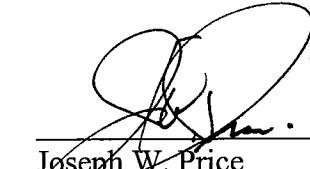
*In re Icon Health and Fitness, Inc.* 2007 U.S. App. Lexis 18244,  
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It is believed the present application is now in condition for allowance and an early notification of the same is requested.

If the Examiner believes that a telephone interview will assist in the prosecution of this case, the undersigned attorney can be contacted at the listed telephone number.

Very truly yours,

**SNELL & WILMER L.L.P.**



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